



# WHERE WE'RE WE DON'T

□ □ □ □ Genuine 3D, performance capture, photo-realistic animation... It's taken 28 years to make good on the promise of Tron. But now Comic-Con's favourite child is set to leave even Avatar in its wake. "The bar is so much higher," says director Joe Kosinski



# GOING... NEED ROADS!

WORDS IAN NATHAN







## BACK IN 1982, STEVEN LISBERGER, LONG-SUFFERING DIRECTOR OF *TRON*,

received a disappointing phone call. It wasn't exactly the first. His intrepid sci-fi movie had rather baffled moviegoers with its weird concept of humans embodied within a computer program — specifically an arcade game — and had limped out of the box office without even mustering a cult following. He was sure he had seen the future, this fusion of traditional filmmaking with computer animation. Now the Academy was on the line: they were terribly sorry, but his film was disqualified from the year's Best Special Effects category. It had clearly cheated.

"They thought you entered code and shots came out," laughs Joseph Kosinski, director of *Tron's* long, long-gestating sequel. "They didn't think there was any craft or skill in it."

All these modelmakers and puppet-builders, artisans of glue and wire, watching this pearlescent spin of pixels: bemused, irritated, maybe even faintly worried...

"That's not visual effects, that's not our craft, we can't relate to it," mimics Eric Barba with an incredulous shake of the head. He happens to be visual effects supervisor on *Tron: Legacy*, and the mastermind behind sending Brad Pitt's body backwards through time, wizened ancient to angelic baby, in *The Curious Case Of Benjamin Button*. For which he happened to pick up an Oscar.

"What *did* win that year?" asks Kosinski, interest piqued.

"*E. T.*, I think," replies Barba. "Or it might have been *Blade Runner*."

"It was probably *E. T.*," says Kosinski thoughtfully, "and that was all models built at ILM, right?"

The Oscar did indeed go to *E. T.*, gratefully received by Carlo Rambaldi, Dennis Muren and Kenneth Smith.

"Steve was too far ahead of his time," sighs Kosinski. "He really was."

Back in 2008, at Comic-Con in San Diego, the panel for *Race To Witch Mountain* was winding down. The crowd had enjoyed Dwayne Johnson's wisecracking, but were feeling the need to stretch and visit the Supermen's room after Disney's long morning session. But before they could exit the briny air of Hall H, there was one more previously unannounced presentation. The grumbling throng seated themselves again as Kosinski and his producer, Sean Bailey, took the stage. The lights went down and they played a two-and-a-half-minute trailer — actually test footage — for a sequel to *Tron*.

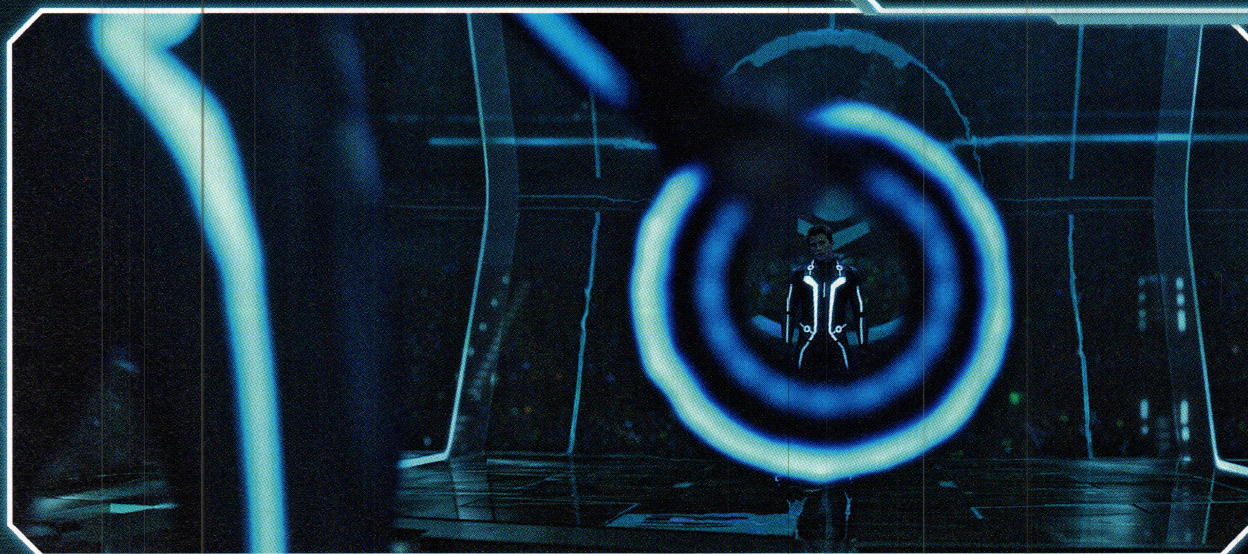
Lightcycles swoon through the neon-trimmed *Tron*-world, familiar yet much more luxuriant: clouds flicker with ominous thunderstorms; a vast, luminous cathedral is glimpsed on the horizon; the purring bikes negotiate tunnels, leaps and spirals; a rich hum of fine-tuned power stirs from the speakers; an older, bearded Jeff Bridges appears in a crystal-white Kubrickian penthouse; and finally, the evil lightbiker, striped in molten-orange, reveals his face... it's Jeff Bridges, but impossibly young.

The crowd went absolutely bananas. Within minutes alarm bells were ringing across the internet — the coolest thing in





## BRIEFING

TRON  
LEGACY**Released:** December 16**Budget:** \$200 million (estimated)**Director:** Joseph Kosinski**Starring:** Jeff Bridges, Garrett Hedlund, Olivia Wilde, Michael Sheen, Bruce Boxleitner**The original:** Game programmer/hacker Kevin Flynn (Bridges) gets absorbed into a violent game world where, as Clu, he joins Tron (Boxleitner) in a fight against the Master Control Program (MCP).**The upgrade:** Flynn has been missing for 20 years. His son, Sam (Hedlund), discovers the Tron-world and enters it in search of his father. But here Sam must contend with his father's "other son", nefarious Program Clu 2.0 (Bridges)...

the universe had just been unveiled. "Showing that was a big gamble for Disney," admits Kosinski. "Showing test footage to an audience, *that* audience, was just not done."

Attempts at a *Tron* sequel had come and gone in the intervening years. Lisberger, on his uppers, tried to make good on his promise. Scripts came and went. Some ideas were siphoned into the 14 game adaptations (see page 54); *Tron's* coin-op unit, at least, won game of the year in 1983. Rumour has it Pixar took a look. "To my knowledge," says Bailey, "there were a couple of drafts in the late '90s and early 2000s. I came on in 2004/5 and fortunately met Joe." Between them, and a series of screenwriters, ideas evolved.

Disney liked what they heard, but weren't about to hand over \$200 million to make a blockbuster sequel to a forgotten item from '82 in a hurry. "Prove it," was the simple challenge. So Kosinski assembled a crew, the proto-team for what would become *Tron: Legacy's* army of creatives, and shot a visual test. A groundbreaking commercials director, Kosinski knew his way around a two-minute sell. Up until the Thursday before Comic-Con, Disney had no intention of showing anything. Honestly, they were more likely to let another attempt at rebooting *Tron* drift back into the ether. Then they saw Kosinski's thrilling showpiece. And went bananas. Take it to Comic-Con, they agreed, see if the crowd roars.

"It was enormous," smiles Bailey. "You could say it was the moment it was greenlit. I remember thinking, If this plays big, I

**LEFT:** Old-schoolers Steven Lisberger and Jeff Bridges, with Garrett Hedlund (far left) and Joseph Kosinski (far right). **TOP:** Sam Flynn (Hedlund) enters the lost Arcade. **ABOVE:** A view of Sam through an identity disc.

know we're going to make the movie. If it doesn't, we're dead."

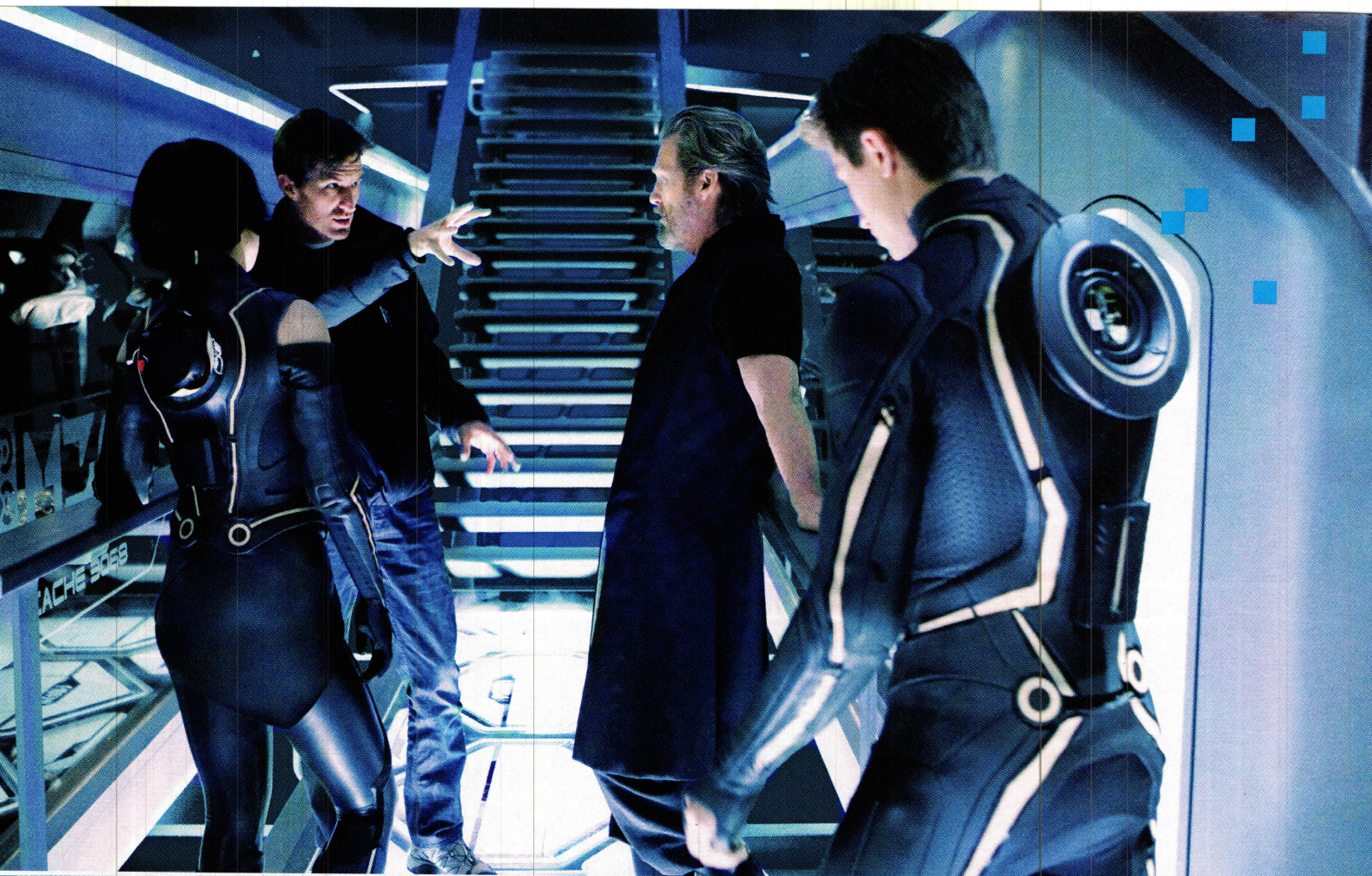
Today, June 2010, *Empire* arrives at Tribeca West in Santa Monica, where the production office for *Tron: Legacy* is unassumingly housed (Michael Mann and Oliver Stone live upstairs). Kosinski is playing host, a tall, slender figure in simple fatigues of jeans and jumper. You can't imagine a personality — polite, dry-witted, scalpel-sharp clever — further from big-chinned drill sergeants like Michael Bay. He shows off scale models (shelved beside the inevitable *Tron* one-sheet from '82), miniature edifices of glue and wire: Throne Ship, Recognizer, game chambers, and the End Of Line club, complete with tiny Lisberger, who cameos as the barkeep.

"He's a producer on this film," says the young director of the old. "That was important for me. This is *his* world. He's also pretty pleased he's got an action figure."

They have completed only 15 per cent of the effects thus far, but Kosinski has a 2D taster ready on a vast HD TV. We ►

**"DAVID FINCHER'S SEEN MY  
ROUGH CUT, HE'S GIVING ME  
GOOD NOTES."  
JOSEPH KOSINSKI, DIRECTOR**





ABOVE: Kosinski with the two Flynnns, and Olivia Wilde as Quorra.

start in the real world, the young Sam Flynn (Garrett Hedlund) meeting up with Bruce Boxleitner's Alan Bradley (aka Tron). His father, Kevin Flynn (Bridges), has been missing for 20 years and a mysterious message has escaped his disconnected phone line. We see Flynn's Arcade (rebuilt to exact specifications), ancient fridge-sized games lying dormant, draped in dustsheets. When Sam flips the power there comes the delightful digital birdsong of '80s coin-ops. "We're still wrangling the rights for some," whispers Kosinski. "I want the real things, the famous ones like Centipede." Behind the *Tron* game itself is a secret room... Next we go to Tron-world: Sam in his leather one-piece ribbed in ice-blue, duelling with neon discs. It's fast, thrilling stuff: polygons of glass shattering beneath the players, a disc ricocheting out past our ears. In 3D it'll rock. Overseeing the frenzied tournament, slouched in his Throne Ship, is villainous Clu... A 31-year-old Jeff Bridges.

"There was something in the original film," says Kosinski, turning to the one-sheet. "There are some cheesy bits, sure. But there is something architectural to be mined from that film. Things that have been replicated a dozen times in movies like *The Matrix*, something people understand so much better today. In 1982 it didn't connect with people. Now the idea of an online personality is second nature. I knew there was a really cool version of this movie."

**B**ACK IN JUNE 2009, EMPIRE IS AT THE CANADIAN Motion Picture Park in Vancouver. *Tron: Legacy* is midway through its 64-day shoot; its post-production will run to 68 weeks. In through an industrial-thick door is a vision in pop-video dream-glow, a cascade of Kubrick-lit splendour — the End Of Line club. The bar lets forth sunbursts of radioactive liquor: blue-white flagons of digi-booze; the dancefloor screensavers pre-programmable light sequences — in truth, it's a giant, reinforced LED screen inserted into the floor. This is the razzle-

dazzle nightspot of Tron-world, a mile up in the digital heavens.

Here Lisberger, ill-at-ease in white pyjamas, tends bar, and Michael Sheen, dolled up like a chromium Mad Hatter, is the establishment's dubious owner, Castor. "I'm doing another Brit," he whispers to *Empire*. "You'll have to figure out who..."

Sam has come here in search of answers. In the company of the mysterious Quorra (Olivia Wilde), he's seeking his elusive father. And this being a bar, a brawl is about to break out. Tron-suited stuntmen are rehearsing choreographed kung fu before they don shadowy helmets. Kosinski likes to describe his film as a Western.

But aren't we supposed to be in the "volume", the scenery composed on a hard drive at a later date? "I didn't want it to look CG," says Kosinski, who enjoys the contradiction — a film set within a hard drive, but shot on Canadian soundstages. "Tron-world needs rules. We have leaned into making everything as physical as possible. This is a world that has been sitting on that server in Flynn's Arcade for 20 years like a Galapagos Island evolving on its own, refining the simulation, becoming more and more realistic. The materials are glass, concrete, metal. I wanted it to feel like it was shot."

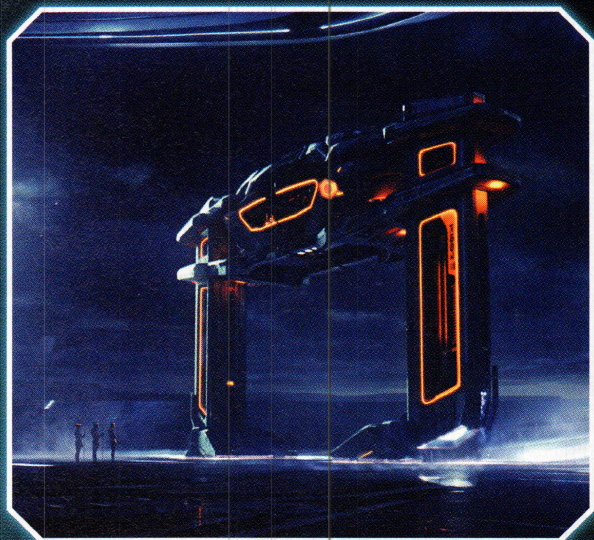
Kosinski is not your traditional wunderkind. A graduate of Columbia's School Of Architecture, he remains an assistant professor there specialising in 3D modelling and graphics. Instead of skyscrapers, he turned to TV commercials, gaining a reputation for a melancholic futurism, a *Tron*-ness, if you will. Check out his Les Jumelles ad for Nike, or his hello-Hollywood *Gears Of War* piece, which fuses alien annihilation with Gary Jules's icy cover of *Mad World*. Before *Tron*, Kosinski was vying to remake dystopian shocker *Logan's Run*.

"He's one of the most technologically facile people you're going to meet," says Bailey. "He comes from this design background. He's an artist."

He also comes highly recommended by David Fincher. The *Fight Club* director was instrumental in bringing



BELOW: *Legacy*'s upgrade of the original's imposing Recognizer. RIGHT: Player One leaps into *Tron: Legacy*'s gladiatorial arena.



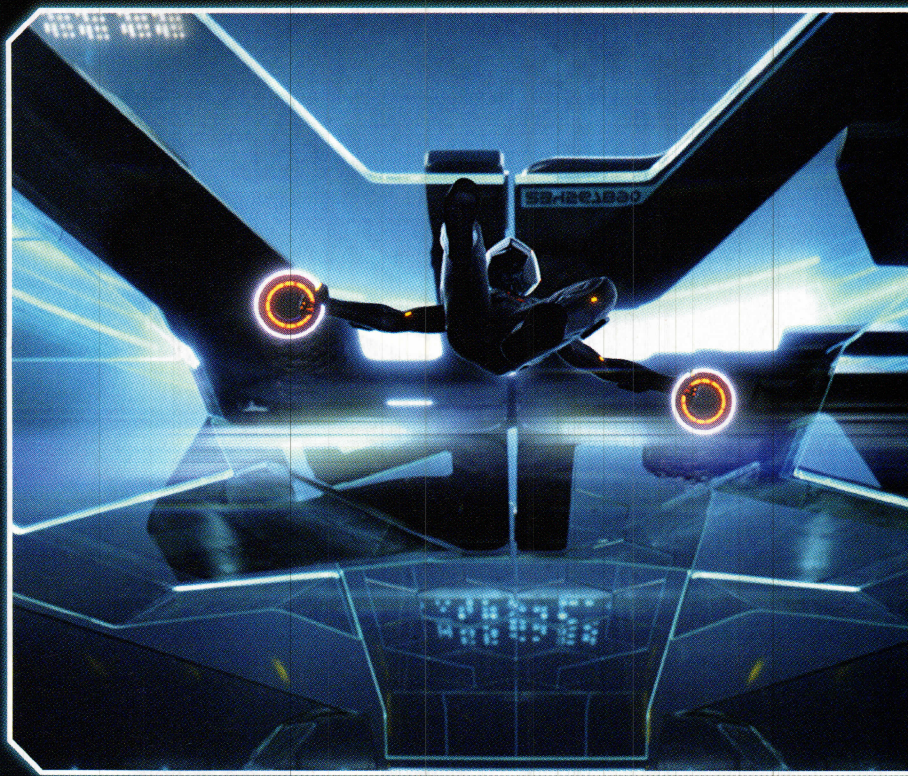
Kosinski to LA; it's not for nothing *Tron: Legacy*'s Director Of Photography is Fincher's go-to guy, the Chilean Claudio Miranda, and Barba his effects guru of choice. Fincher remains a sounding board: "He's seen my rough cut," nods Kosinski, "giving me good notes."

The disciplines of architecture make for highly calibrated filmmaking. Kosinski uses words like "visceral" and "materiality", and can happily talk maths, art and philosophy alongside the tech-specs of *Young Sherlock Holmes*. He's a renaissance geek. Everything in his *Tron* is scrutinised and made plausible. There is gravity and momentum, weather systems patrol the black skies: a world evolving away from CG towards life, symbolically paralleling the quixotic journey of special effects themselves — the quest for realism.

"What holds up from the original *Tron*, even though the graphics don't, is the design," says Kosinski, inspired that Lisberger also used the "timeless" talents of futurist Syd Mead and French comic-book legend Moebius, the progenitors of *Blade Runner*-world. And with Lisberger a producer, he was given access to their original sketches. Ideas rejected for being "too hard".

Take the lightcycles, for example. Mead's concept was an open cockpit — man and machine as one. But 1982 processors couldn't handle the polygons of a human figure. Kosinski has reinstated the idea — in a dynamic flourish, bikers dive headlong into the air, igniting a remote, and the lightcycle smoothly morphs around them. The new suits, as worn by the writhing stuntmen, are first generation as well. Lisberger had gone with Moebius's infamous "circuitry"; Kosinski has taken Mead's neon wetsuits and added style.

He's also added Kubrick. Kevin Flynn's 1000 (game) year-old hideout is a homage to the unearthly "suite" at the end of 2001. "People think it is the Monolith's attempt at reproducing real-world surroundings for a human being" — naturally Kosinski has a theory on Kubrick's impenetrables — "the



**"IN 1982 TRON DIDN'T CONNECT WITH PEOPLE. BUT I KNEW THERE WAS A REALLY COOL VERSION OF THIS MOVIE." KOSINSKI**

equivalent of a cage, or a hamster wheel." As applied to *Tron*, Flynn's room reflects an attempt at a real world assembled from the building blocks of *Tron*-world: glass, stone and concrete. An intricate Victorian dining table is transparent, the fireplace white as snow. Kosinski describes a captivating scene — emphasising his theme of Users vs. Programs — where Clu, discovering the hideout, is intrigued by these "baubles a human would have: chairs, candelabras and chandeliers".

*Tron* has evolved. *Tron* has become cool.

At the back of the dancefloor, two skinny men in skin-tight silver spandex slide between banks of blue sofas: "That is Daft Punk *without* their helmets on..." points out Bailey. The *très chic* Parisian electro-combo, never knowingly spotted without helmets on, are resident DJs at the End Of Line (with special "Tron-Punk" head gear). They are scoring the entire movie. "They heard we were making the sequel and called," boasts Bailey: "Tron is hugely influential for us, could we talk to you about your movie?" If you're curious, Guy-Manuel de Homem-Christo and Thomas Bangalter look kinda French...

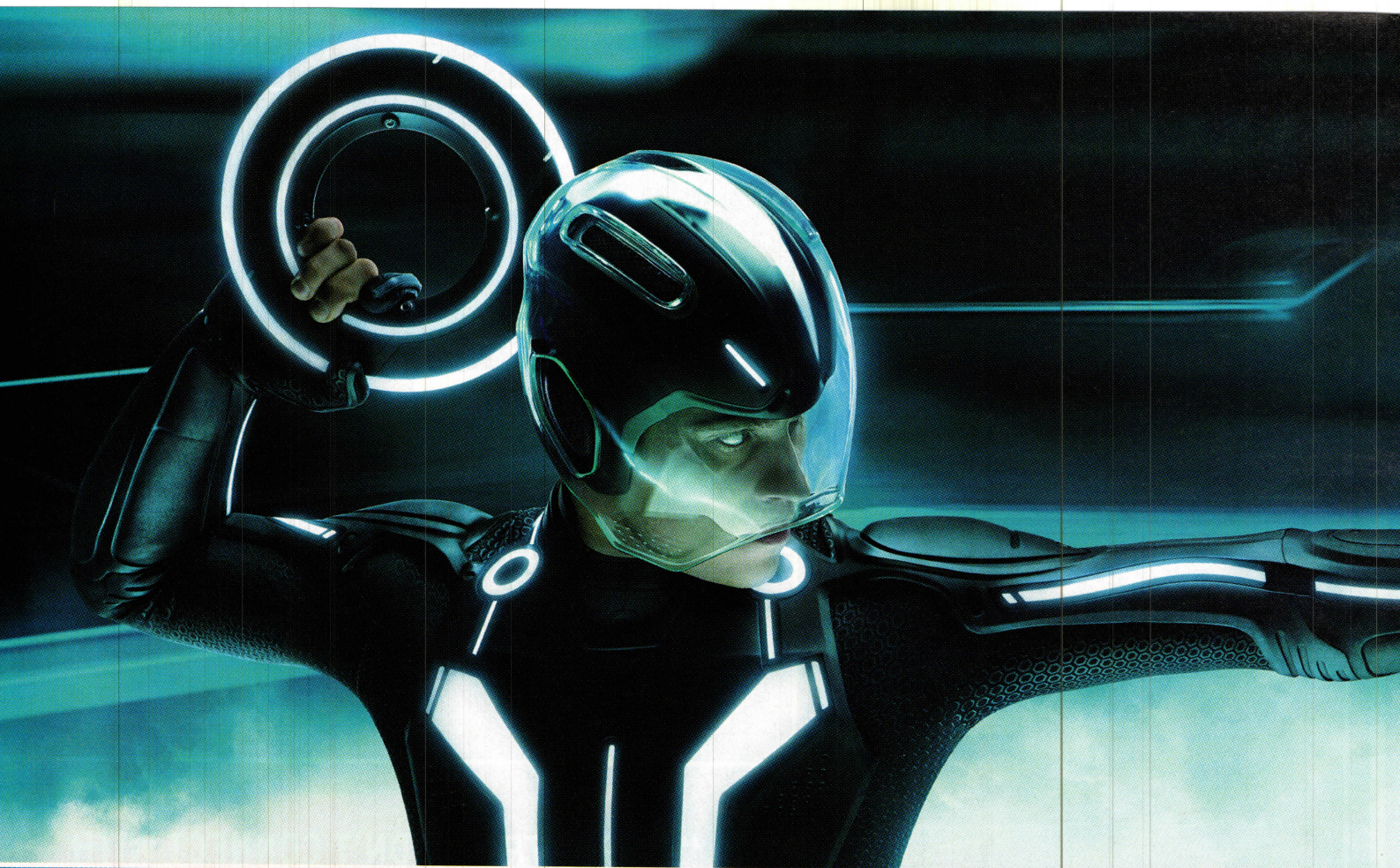
**KOSINSKI'S GUN-METAL PORSCHE CARRERA** weaves through the LA traffic with the fluid grace of a video-game. It might even be floating. The 10 minutes to Digital Domain in Venice Beach give him ample time to demo Daft Punk's work-in-progress *Tron*-vibes on the in-built MP3 player. The cocktail of music and motion is electrifying.

"Daft Punk came on before we even started shooting," says Kosinski. "We've built them a studio, they come to dailies, script meetings and trailer edits. We've been editing to their temp scores. The music is fully integrated." ▶



ABOVE: Jeff Bridges turns back time.





ABOVE: The original's identity discs – also nifty weapons – reappear in *Legacy*.

Not since Howard Shore on the *Rings* trilogy has a composer been so fully immersed into the creative process. The music is remarkable, an improbable triangulation of *Blade Runner*-Vangelis, *Star Wars*-John Williams and *Shallow Grave*-Underworld: phantasmagorical rave to swooning strings. "It goes way beyond just scoring," says Kosinski, who explains that the music works on three levels: orchestral, electronic and "special effect" — sounds dissembled into everlasting loops, the song of *Tron*.

"This is the lightcycle theme," he grins, as a magnificent surge of layered synths and concussive rhythms pours out of the Porsche's high-end speakers. "We've actually tuned the lightcycle engines to the same frequency as the score."

As well as its IMAX run, the film will be released in 50 Iosono-equipped theatres. Developed by the Fraunhofer Institute — who invented the MP3 — this is a wave synthesis sound system that effectively creates an audio hologram. "You can place a particular sound anywhere in the theatre," exults Kosinski as we crunch into Digital Domain's car park. "It is 3D sound."

DIGITAL DOMAIN IS ESSENTIALLY A GIANT ANT-FARM of programmers and artists, with a conference room designed by legendary architect Frank Gehry. Kosinski is intent on giving *Empire* a tour through the thicket of weary effects-workers and hard drives, proof of the sheer slog in getting a 1500 effects-shot movie to the big screen for Christmas: "I don't want you thinking we just enter code and shots come out."

We pass from the Code Room to the Graphics Room to the Compositing Room. Barba is scrutinising a close-up of Clu.

"Not sure about the mouth, the way he's doing the Ts," notes Kosinski, peering over his shoulder.

"Yeah, that needs another run," sighs Barba.

Clu is a big deal. This photo-real young Bridges is leagues ahead of what Barba achieved even with *Button*. They started two years ago, long before principal photography, laying down 100 different shapes of Bridges's face doing different emotions, testing the waters of perfection.

"You can't just build a perfect double," notes Kosinski. "It has to have Jeff's idiosyncrasies."

Using a HaloTech head rig (now with four HD cameras as opposed to *Avatar*'s one), Bridges acted in situ. Thus: perfect



## RAIDERS OF THE LOST ARCADE

A brief history of the *Tron* spin-off video-games

Bally Midway wasted no time in trotting out the **TRON** arcade cabinet in 1982 (left), and it looked fantastic with its glowing joystick. However, its confusing set of flat mini-games were far from immersive. 1983's **DISCS OF TRON** was a vast improvement — a fast-paced 3D version of the movie's Pelota game. The burgeoning home-gaming scene saw many spin-offs, some of which, like **VECTRON** on the ZX Spectrum, were quite nifty. It's

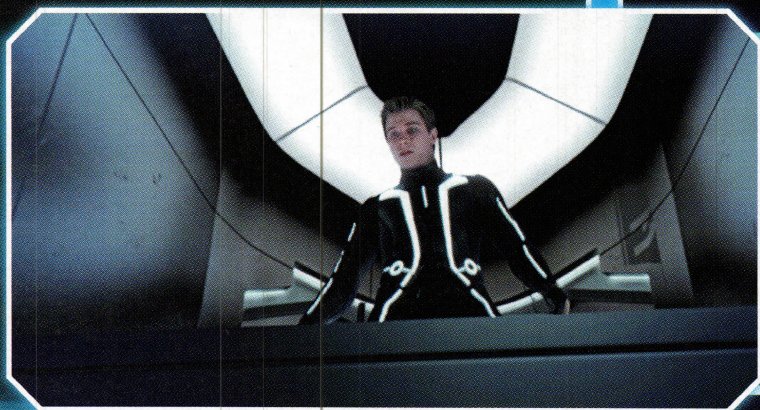
a pity, then, that the official tie-ins were launched on platforms like the Intellivision, which had a screen resolution on a par with a '90s Nokia. This played host to such tosh as **TRON: SOLAR SAILER** — a shoot-things-on-a-grid game that required the purchase of an expensive speech module. Things went understandably quiet for two decades, until **TRON 2.0** in 2004. This first-person shooter featured voice work from Bruce Boxleitner

and Cindy Morgan and input from production designer Syd Mead himself, making it the first game to capture the true *Tron* atmosphere.

However, even that was eclipsed by the unexpected appearance of **SPACE PARANOIDS** this year. Launched as part of the *Tron: Legacy* viral campaign, it delivered the real deal to fans who'd waited the best part of 30 years.

ANTHONY O'NEILL





**"I DIDN'T WANT IT TO LOOK CG... WE HAVE LEANED INTO MAKING EVERYTHING AS PHYSICAL AS POSSIBLE." KOSINSKI**



eyelines, human responses, a bona fide engagement with the scene. "We feed that to the animators, they feed back to Jeff," says Barba. Everything is analysed and made real: hair, teeth, gums, how the light falls in his eyes. In other instances, Bridges's "face" will be superimposed onto a younger actor wearing what Kosinski mundanely describes as a "head sock". Clu is the film's greatest ambition. And biggest risk.

"It never gets easier," says Barba as we head to the effects run-through. "You always find a way to push the existing tool-set to breaking point. You always have to go further."

The small theatre, equipped with intercoms and armchairs, is crowded. Laptops cast a *Tron*-like glow upon expectant faces — the team will take down everything Kosinski says as the director bluebottles a laser pointer over the screen. The atmosphere is end-of-term jovial.

Over the next 40 minutes, shots of varying degrees of completion are run past the director: Clu pontificating to a crowd of Programs (Kosinski worries about his neck line); Quorra remonstrating with Clu (his hair looks flat); Clu smirking (the background angles seem out of whack).

Finally, we are handed 3D specs. We're going stereo, for a superbly realised lightcycle sequence of Sam and other racers facing off against the brilliant Clu. As Clu curls round a corner, he sweeps his disc at an oncoming rider, slicing his head off. In

the instant of "game death", the unfortunate biker "deresses" into a million crystal shards. The 3D is astonishing — *Tron*-world falling away into the infinite distance.

*Tron: Legacy* is the first film since *Avatar* to be completely shot in 3D, requiring a giant rig the size of a fridge containing two digital cameras side-by-side. The same gear James Cameron used, albeit next generation.

"You don't get *that* in conversion," crows Barba, still blown away by a 3D plunge through the cloud-line. "Conversion is for sissies!"

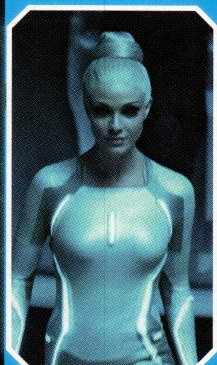
Kosinski is by no means the 3D zealot Cameron is. He's sceptical about the studios' all-encompassing attitude, but thinks that for certain projects it makes total sense. One, say, set within a dreamlike game world. "For films like *Avatar* and *Tron* that transport people to another world, it's a more immersive experience."

Lisberger must weep to see such technology at work. In '82 he had to go begging to Californian universities, the only places with computers big enough to render his shots. Kosinski has sympathy. "For him it is beyond the movie. He made this monumental labour of love at a scale people don't really understand. It is seen as a failure. But now, not just with *Tron: Legacy*, but with *Tron* too, people can see it was pretty special."

Think about it. No *Tron*, no *Avatar*. No *Tron*, no Pixar. John Lasseter often recalls being at Disney in the early '80s, fascinated by these guys using computers to draw. The digital revolution may have arrived without it, but *Tron* was the *Jazz Singer* of pixels. No *Tron*, no *Tron: Legacy*.

Such is the confidence Disney has for the sequel, part three is already being scripted (creating a trilogy). Where that could possibly go, Kosinski is too distracted to contemplate. He's already committed to reinventing Disney's *The Black Hole* in 3D, as if on a personal crusade to lend credibility to the studio's '80s extravaganzas. "Whatever happens," he concludes, "it'll have to go to the next level."

► *Tron: Legacy* is out on December 16 and will be reviewed in a future issue.



**TOP:** Garrett Hedlund as Kevin Flynn's flesh offspring.  
**TOP RIGHT:** Jeff Bridges as the real Flynn, trapped in the *Tron*-world.  
**ABOVE:** Olivia Wilde lounging as Quorra and Beau Garrett as Siren Jem.